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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,638	09/20/2000	James Dunstone Townsend	27609-67125	5708
7590	04/19/2004		EXAMINER	
Barnes & Thornburg 11 South Meridian Street Indianapolis, IN 46204			RAO, SHEELA S	
			ART UNIT	PAPER NUMBER
			2125	
DATE MAILED: 04/19/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/646,638	TOWNSEND, JAMES DUNSTONE
	Examiner Sheela Rao	Art Unit 2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 05 February 2004.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-17 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 20 September 2000 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Applicant's amendment filed on 5 February 2004 has been entered and considered.

2. Claims 1 and 12 have been amended. Claims 1-17 are presented for examination.

***Response to Amendment***

3. The rejection of claims 1, 12 and 15 under 35 USC §112, 2<sup>nd</sup> paragraph, is withdrawn in light of the changes made to the claims.

4. The rejection of claims 1, 2, 4, 6-15, and 17 under the doctrine of obviousness-type double patenting over claims 1, 2, 6-17 and 20 of USPN 6,076,740 to Townsend in view of USPN 5,717,589 to Thompson, et al. is maintained. For the text of the obviousness-type double patenting rejection, see paragraph nos. 5 & 6 of the previous Office action (paper no. 5).

5. The rejection of claims 1-17 under 35 USC §103(a) as being unpatentable over Evelyn-Veere (USPN 5,023,787) in view of Thompson, et al. (USPN 5,717,589) is maintained and has been restated below.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evelyn-Veere (US Patent 5,023,787) in view of Thompson, et al. (US Patent 5,717,589).

The patented invention of Evelyn-Veere teaches a method and apparatus for controlling an irrigation system within a large area. In doing so, the reference of prior art discloses the use of a computer system for controlling a plurality of irrigation systems to define watering times, processing the flow rates, and updating the system based on time and conditions. See Figure 4. Evelyn-Veere fails to

teach the use of a radar-scanning device to examine the amount of rainfall as a means of metering or measuring the weather conditions. The disclosure of Evelyn-Veere does not use radar scanning, but uses the experience and knowledge of the operator to determine the best levels of watering. The knowledge/experience of the operator is used to build and modify the system database. Indeed the use of a weather tracking radar would help in more precisely calculating weather patterns and climate conditions. Precision in evaluating thermal conditions can help better estimate water flow amounts necessary for irrigation. To this effect, Thompson, et al. teaches the use of a weather tracking system that is able to track and predict weather conditions with the use of a radar system in a geographic location. The real-time weather tracking system would strengthen the data supplied by the operator to the irrigation system of Evelyn-Veere. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the radar system of Thompson with the irrigation control system of Evelyn-Veere so as to be able to more accurately gauge the amount of water needed for irrigation purposes as well as to allow for controlling the irrigation system from a remote location.

The patented invention of Evelyn-Veere continues to teach the limitations of the claimed invention. Wherein, the regulation of irrigation is carried out by initiating/granting or preventing/denying as per instant claims 2, 7-9, 13, 15, and 17 is disclosed in column 2: lines 43-53 and column 4: line 5, et seq. A computer system with a monitor, as per claims 3 and 5, is used to control the irrigation system; see figures 1 and 3. The irrigation system takes into account the variations in the weather conditions and the radar of the Thompson, et al. reference provides additional weather data, as per claims 4 and 16.

For the reasons stated above, the limitations of the claimed invention is taught by the prior arts of record; thereby, rendering the instant claims unpatentable.

#### ***Response to Arguments***

8. Applicant's arguments filed February 5, 2004 have been fully considered but they are not persuasive.

a. To address the argument with regard to the double patenting rejection, Examiner disagrees. The combination of the invention as claimed by US Patent No. 6,076,740 to Townsend, in view of US Patent No. 5,717,589, to Thompson, et al., indeed teaches the

limitations of the instant invention thus rendering the obviousness-type double patenting rejection appropriate. Applicant argues that the invention by Thompson "obtains information ... and performs calculations which provide a prediction as to be the likely movement of the weather cell", stating that this is an act of predicting and not sensing as claimed by the instant invention. Examiner disagrees since the system of Thompson must collect sufficient data to make a prediction or sense a forthcoming weather pattern. Using a weather-tracking device such as a radar enables the computer system to forecast weather conditions. The obviousness type double patenting rejection of claims 1, 2, 4, 6-15 and 17 is maintained.

b. With regard to the arguments made about the rejection of claims 1-17 under 35 USC §103(a), Examiner apologizes for the oversight in stating Townsend rather than Evelyn-Veere in the text of the rejection. The rejection is restated above with the correction having been made.

Applicant argues that the patented invention by Evelyn-Veere does not teach the "collecting of weather data or calculation of irrigation needs from such data". Examiner disagrees as the disclosure of the Evelyn-Veere clearly states that the information from the weather station is analyzed to produce/calculate potential ET (evapotranspiration) levels, see col. 5, ll. 24-28, in relation to Fig. 2. Starting at line 49 in column 4, the Evelyn-Veere reference discloses the process used to collect the weather data and calculate ET values for each area using the collected data.

Applicant continues by arguing that neither the Evelyn-Veere nor the Thompson references "... create a dynamic flow control of irrigation based on measured and calculated needs." Examiner disagrees. The Evelyn-Veere system calculates water flow and uses the calculated data for determining the range for the amount of water to be used in the irrigation process. See Fig. 2 and col.5, ll. 6-61. Furthermore, the flow manager as outlined in col. 16, line 61, et seq. along with Fig 3 is used to control the flow of the irrigation system.

The irrigation system as taught by Evelyn-Veere when combined with the weather tracking radar system of Thompson teaches the limitation of the instant invention as claimed; thus, the rejection as aforementioned is maintained.

**Conclusion**

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (703) 305-9766. The examiner can normally be reached Tuesday - Thursday from 9:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (703) 308-0538.

Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks  
Washington, D.C. 20231**

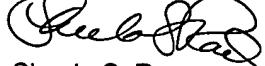
or faxed to:

**(703) 872-9306 for Official Communications**

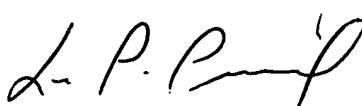
hand-delivered responses should be brought to:

**Receptionist - Sixth Floor  
Crystal Park II, 2121 Crystal Drive, Arlington, Virginia**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Sheela S. Rao  
April 14, 2004



LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100